ATTACHMENT I TO JPN-88-025

PROPOSED TECHNICAL SPECIFICATION CHANGES REGARDING REACTOR VESSEL WATER LEVEL INSTRUMENTATION (JPTS-83-014)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

2.1 (cont'd)

2. Reactor Water Low Level Scram Trip Setting

Reactor low water level scram setting shall be $\geq$177 in. above the top of the active fuel (TAF) at normal operating conditions.

3. Turbine Stop Valve Closure Scram Trip Setting

Turbine stop valve scram shall be $\leq$10 percent valve closure from full open when above 217 psig turbine first stage pressure.

4. Turbine Control Valve Fast Closure Scram Trip Setting

Turbine control valve fast closure scram control oil pressure shall be set at 500 $<$ P $<$ 850 psig.

5. Main Steam Line Isolation Valve Closure Scram Trip Setting

Main steam line isolation valve closure scram shall be $\leq$10 percent valve closure from full open.

6. Main Steam Line Isolation Valve Closure on Low Pressure

When in the run mode main steam line low pressure initiation of main steam line isolation valve closure shall be $\geq$825 psig.

2.1 BASES (Cont'd)

c. APRM Flux Scram Trip Setting (Run Mode) (cont'd)

rated power. This reduced flow referenced trip setpoint will result in an earlier scram during slow thermal transients, such as the loss of 80°F feedwater heating event, than would result with the 120% fixed high neutron flux scram trip. The lower flow referenced scram setpoint therefore decreases the severity (Δ CPR) of a slow thermal transient and allows lower Operating Limits if such a transient is the limiting abnormal operational transient during a certain exposure interval in the cycle.

The APRM fixed high neutron flux signal does not incorporate the time constant, but responds directly to instantaneous neutron flux. This scram setpoint scrams the reactor during fast power increase transients if credit is not taken for a direct (position) scram, and also serves to scram the reactor if credit is not taken for the flow referenced scram.

The scram trip setting must be adjusted to ensure that the LHGR transient peak is not increased for any combination of maximum fraction of limiting power density (MFLPD) and reactor core thermal power. The scram setting is adjusted in accordance with the formula in Specification 2.1.A.1.c, when the MFLPD is greater than the fraction of rated power (FRP). This adjustment may be accomplished by either (1) reducing the APRM scram and rod block settings or (2) adjusting the indicated APRM signal to reflect the high peaking condition.

Analyses of the limiting transients show that no scram adjustment is required to assure that the MCPR will be greater than the Safety Limit when the transient is initiated from the MCPR operating limits provided in Specification 3.1.B.

d. APRM Rod Block Trip Setting

Reactor power level may be varied by moving control rods or by varying the recirculation flow rate. The APRM system provides a control rod block to prevent rod withdrawal beyond a given point at constant recirculation flow rate, and thus provides an added level of protection before APRM Scram. This rod block trip setting, which is automatically varied with recirculation loop flow rate, prevents an increase in the reactor power level to excessive values due to control withdrawal. The flow variable trip setting parallels that of the APRM Scram and provides margin to scram, assuming a steady-state operation at the trip setting, over the entire recirculation flow range. The actual power distribution in the core is established by specified control rod sequences and is monitored continuously by the in-core LPRM system. As with the APRM scram trip setting, the APRM rod block trip setting is adjusted downward if the maximum fraction of limiting power density exceeds the fraction of rated power, thus preserving the APRM rod block margin. As with the scram setting, this may be accomplished by adjusting the APRM gain.

2. Reactor Water Low Level Scram Trip Setting

The reactor low water level scram is set at a point which will assure that the water level used in the Bases for the Safety Limit is maintained. The scram setpoint is based on normal operating temperature and pressure conditions because the level instrumentation is density compensated.

TABLE 3.1-1 (cont'd)

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT

Minimum No. of Operable Instrument Channels per Trip System (1)	Trip Function	Trip Level Setting[1]	Modes in Which Function Must be Operable			Total Number of Instrument Channels Provided by Design for Both Trip Systems	Action (1)
			Refuel (6)	Startup	Run		
2	APRM Downscale	≥2.5 indicated on scale (9)			X	6 Instrument Channels	A or B
2	High Reactor Pressure	≤1045 psig	X(8)	X	X	4 Instrument Channels	A
2	High Drywell Pressure	≤2.7 psig	X(7)	X(7)	X	4 Instrument Channels	A
2	Reactor Low Water Level	≥177 in. above TAF	X	X	X	4 Instrument Channels	A
3	High Water Level in Scram Discharge Volume	≤34.5 gallons per Instrument Volume	X(2)	X	X	8 Instrument Channels	A
2	Main Steam line High Radiation	≤3x normal full power background (16)	X	X	X	4 Instrument Channels	A
4	Main Steam Line Isolation Valve Closure	≤10% valve closure	X(3)(5)	X(3)(5)	X(5)	8 Instrument Channels	A

Amendment No. ~~19~~, ~~43~~, ~~67~~, ~~75~~, ~~87~~, ~~90~~

3.2 BASES

In addition to reactor protection instrumentation which initiates a reactor scram, protective instrumentation has been provided which initiates action to mitigate the consequences of accidents which are beyond the operator's ability to control, or terminates operator errors before they result in serious consequences. This set of specifications provides the limiting conditions of operation for the primary system isolation function, initiation of the Core Cooling Systems, Control Rod Block and Standby Gas Treatment Systems. The objectives of the specifications are to assure the effectiveness of the protective instrumentation when required, even during periods when portions of such systems are out of service for maintenance, and to prescribe the trip settings required to assure adequate performance. When necessary, one channel may be made inoperable for brief intervals to conduct required functional tests and calibrations.

Some of the settings on the instrumentation that initiate or control core and containment cooling have tolerances explicitly stated where the high and low values are both critical and may have a substantial effect on safety. The set points of other instrumentation, where only the high or low end of the setting has a direct bearing on safety, are chosen at a level away from the normal operating range to prevent inadvertent actuation of the safety system involved and exposure to abnormal situations.

Actuation of primary containment valves is initiated by protective instrumentation shown in Table 3.2-1 which senses the conditions for which isolation is required. Such instrumentation must be available whenever primary containment integrity is required.

The instrumentation which initiates primary system isolation is connected in a dual bus arrangement.

The low water level instrumentation, set to trip at 177 in. above the top of the active fuel, closes all isolation valves except those in Group 1. Details of valve grouping and required closing times are given in Specification 3.7. For valves which isolate at this level, this trip setting is adequate to prevent uncovering the core in the case of a break in the largest line assuming a 60 sec. valve closing time. Required closing times are less than this.

The low-low reactor water level instrumentation is set to trip when reactor water level is 126.5 in. above the top of active fuel. This trip

TABLE 3.2-1

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION

Minimum Number of Operable Instrument Channels per Trip System (1)	Instrument	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Action (2)
2 (6)	Reactor Low Water Level	≥177 in. above TAF	4 Inst. Channels	A
1	Reactor High Pressure (Shutdown Cooling Isolation)	≤75 psig	2 Inst. Channels	D
2	Reactor Low-Low-Low Water Level	≥18 in. above TAF	4 Inst. Channels	A
2 (6)	High Drywell Pressure	≤2.7 psig	4 Inst. Channels	A
2	High Radiation Main Steam Line Tunnel	≤3 x Normal Rated Full Power Background (9)	4 Inst. Channels	B
2	Low Pressure Main Steam Line	≥825 psig (7)	4 Inst. Channels	B
2	High Flow Main Steam Line	≤140% of Rated Steam Flow	4 Inst. Channels	B
2	Main Steam Line Leak Detection High Temperature	≤40°F above max ambient	4 Inst. Channels	B
3	Reactor Cleanup System Equipment Area High Temperature	≤40°F above max ambient	6 Inst. Channels	C
2	Low Condenser Vacuum Closes MSIV's	≥8" Hg. Vac (8)	4 Inst. Channels	B

Amendment No. 18, 37, 48, 67, 98, 103

TABLE 3.2-2

INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System (1)	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Remarks
1	2	Reactor Low-Low Water Level	≥126.5 in. above TAF	4 HPCI & RCIC Inst. Channels	Initiates HPCI, RCIC & SGTS.
2	2	Reactor Low-Low-Low Water Level	≥18 in. above TAF	4 Core Spray & RHR Instrument Channels	Initiates Core Spray, LPCI, and Emergency Diesel Generators.
				4 ADS Instrument Channels	Initiates ADS in conjunction with confirmatory low level, 120 second time delay and LPCI or Core Spray pump discharge pressure interlock if not inhibited by ADS override switches.
3	2	Reactor High Water Level	≤222.5 in. above TAF	2 Inst. Channels	Trips HPCI Turbine and closes RCIC steam line isolation valve.
4	1	Reactor Low Level (inside shroud)	≥0 in. above TAF	2 Inst. Channels	Prevents inadvertent operation of containment spray during accident condition.

Amendment No. ~~15~~, ~~48~~, ~~67~~, ~~84~~

TABLE 3.2-2 (cont'd)

INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System (1)	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Remarks
5	2	Containment High Pressure	$1 < p < 2.7$ psig	4 Inst. Channels	Prevents inadvertent operation of containment spray during accident condition.
6	1	Confirmatory Low Level	$\geq$177 in. above TAF	2 Inst. Channels	ADS Permissive in conjunction with Reactor Low-Low-Low Water Level.
7	2	High Drywell Pressure	$\leq$2.7 psig	HPCI Inst. Channels	Initiates Core Spray LPCI, HPCI and SGTS.
8	2	Reactor Low Pressure	$\geq$450 psig	4 Inst. Channels	Permissive for opening Core Spray and LPCI Admission valves.

TABLE 3.2-6
SURVEILLANCE INSTRUMENTATION

Minimum No. of Operable Instrument Channels	Instrument	Type Indication and Range	No. of Channels Provided by Design	Action
2	Narrow Range Reactor Level (Note 3)	Indicator 164.5 to 224.5 in. above TAF	3	(13) (2)
	Narrow Range Reactor Level (Note 4)	Recorder 164.5 to 224.5 in. above TAF		
1	Wide Range Reactor Level (Note 14)	Indicator 14.5 to 224.5 in. above TAF	2	(2)
	Wide Range Reactor Level (Note 15)	Indicator-Recorder 14.5 to 224.5 in. above TAF		
1	Fuel Zone Reactor Level (Note 16)	Indicator 150 in. below to 200 in. above TAF	2	(2)
	Fuel Zone Reactor Level (Note 17)	Indicator-Recorder 150 in. below to 200 in. above TAF		
2	Reactor Pressure (Note 5)	Indicator 0-1200 psig	5	(1) (2)
	Reactor Pressure (Note 6)	Recorder 0-1200 psig		

Amendment No. ~~38~~, ~~48~~, ~~57~~, ~~67~~, ~~69~~

TABLE 3.2-6 (Cont'd)
SURVEILLANCE INSTRUMENTATION

Minimum No. of Operable Instrument Channels	Instrument	Type Indication and Range	No. of Channels Provided by Design	Action
	Drywell Pressure (Narrow Range)	(Narrow Range) Indicator Recorder 10 - 19 psia		
1	Drywell Pressure	(Wide Range) Indicator Recorder 0 - 100 psia	2	(2)
2	Drywell Temperature	Indicator 50 - 250°F	4	(1) (2)
	Drywell Temperature	Recorder 50 - 350°F		
2	Suppression Chamber Temperature	Indicator 50 - 250°F	4	(1) (2)
	Suppression Chamber Temperature	Recorder 50 - 350°F		

Amendment No. 57, 67, 69

NOTES FOR TABLE 3.2-6 (CONTINUED)

14. One (1) indicator from reactor wide range level instrument channel A.

15. One (1) indicator-recorder from reactor wide range level instrument channel B.

16. One (1) indicator from reactor fuel zone level instrument channel A.

17. One (1) indicator-recorder from reactor fuel zone level instrument channel B.

TABLE 3.2-7

INSTRUMENTATION THAT INITIATES RECIRCULATION PUMP TRIP

Minimum Number of Operable Instrument Channels per trip System (1)	Instrument	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Channels	Action
1	Reactor High Pressure	$\leq$1120 psig	4	(2)
1	Reactor Low-Low Water Level	$\geq$126.5 in. above TAF	4	(2)

Notes for Table 3.2-7

1. Whenever the reactor is in the run mode, there shall be one operable trip system for each parameter for each operating recirculation pump. From and after the time it is found that this cannot be met, the indicated action shall be taken.

2. Reduce power and place the Mode Selector Switch in a Mode other than the Run Mode within 24 hours.

ATTACHMENT II TO JPN-88-025

SAFETY EVALUATION FOR PROPOSED TECHNICAL SPECIFICATION CHANGES REGARDING REACTOR VESSEL WATER LEVEL INSTRUMENTATION (JPTS-83-014)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

I. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes to the James A. FitzPatrick Technical Specifications revise Specification and Bases 2.1.A.2, Bases 3.2, Tables 3.1-1, 3.2-1, 3.2-2, 3.2-6, and 3.2-7 on pages 11, 18, 41a, 55, 64, 66, 67, 76, 76a, and 77, and adds a new page 76d. Changes, identified by a capital letter in brackets, reflect modifications to the Reactor Vessel Water Level Instrumentation system and elimination of obsolete level setpoints. The changes are as follows:

[A] Page 11, Specification 2.1.A.2
<u>Reactor Water Low Level Scram Trip Setting (LL1)</u>

1) Delete " (LL1) " from title.
2) Delete " (+12.5 in. indicated level) "

[B] Page 18, BASES 2.1.A.2
<u>Reactor Water Low Level Scram Trip Setting (LL1)</u>

1) Delete " (LL1) " from title.

[C] Page 41a, TABLE 3.1-1 (cont'd)
<u>REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT</u>

Trip level Setting for Reactor Low Water Level:

1) Delete " $\geq$ 12.5 in. indicated level"
2) Remove parentheses
3) Replace "the top of active fuel" with "TAF"

[D] Page 55, BASES 3.2
<u>PROTECTIVE INSTRUMENTATION</u>

Delete " (-38 in. on the instrument) " from the sixth parapraph.

[E] Page 64, TABLE 3.2-1
<u>INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION</u>

Trip Level Setting for Reactor Low Water Level:

1) Delete " $\geq$ 12.5 in. indicated level"
2) Remove parentheses
3) Replace "the top of active fuel" with "TAF"

Trip Level Setting for Reactor Low-Low-Low Water Level:

4) Replace "the top of active fuel" with "TAF"

[F] Pages 66 and 67, TABLE 3.2-2
<u>INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS</u>

Trip Level Setting for Reactor Low-Low Water Level

1) Delete " $\geq$ -38 in. indicated level"
2) Remove parentheses
3) Replace "the top of active fuel" with "TAF"

Trip Level Setting for Reactor Low-Low-Low Water Level

4) Delete " ≥ -146.5 in. indicated level"
5) Remove parentheses
6) Replace "the top of active fuel" with "TAF"

Trip Level Setting for Reactor High Water Level

7) Delete " ≥ +58 in. indicated level"
8) Remove parentheses
9) Replace "the top of active fuel" with "TAF"

Remarks for Reactor High Water Level

10) Replace "Trips HPCI and RCIC Turbines" with "Trips HPCI Turbine and closes RCIC steam line isolation valve."

Trip Level Setting for Reactor Low Water Level (inside shroud)

11) Delete " ≥ +352 in. above vessel zero"
12) Remove parentheses
13) Replace "the top of active fuel" with "TAF"

Trip Level Setting for Confirmatory Low Level

14) Delete " ≥ 12.5 in. indicated level"
15) Remove parentheses
16) Replace "the top of active fuel" with "TAF"

[G] Pages 76 and 76a, TABLE 3.2-6
<u>SURVEILLANCE INSTRUMENTATION</u>

Entry for Reactor Level (first two occurrences)

1) Insert "Narrow Range" above "Reactor Level"
2) Delete "0 - +60"
3) Remove parentheses
4) Replace "the top of active fuel" with "TAF"
5) No. of Channels Provided by Design is changed from "5" to "3"

Entry for Reactor Level (third occurrence)

6) Insert "Wide Range" above "Reactor Level"
7) Insert " (Note 14) " under "Reactor level"
8) Delete "-150 - +60"
9) Remove parentheses
10) Replace "the top of active fuel" with "TAF"
11) Add an entry for a new instrument to read:

Wide Range Reactor Level (Note 15)	Indicator-Recorder 14.5 to 224.5 in. above TAF

12) Add new table entries for the fuel zone level instruments as follows:

Minimum No. of Operable Instrument Channels:	1
Instrument:	Fuel Zone Reactor Level (Note 16) Fuel Zone Reactor Level (Note 17)
Type Indication and Range:	Indicator 150 in. below to 200 in. above TAF Indicator-Recorder 150 in. below to 200 in. above TAF
No. of Channels Provided by Design:	2
Action:	(2)

Table Entry for Drywell Pressure

12) This entry remains unchanged, but is relocated onto page 76a.

[H] Page 76d (new), <u>NOTES FOR TABLE 3.2-6 (CONTINUED)</u>

Four notes (14 through 17) are added to describe the instrument channel sources for the instrumentation added are changed in changes F.6, 10, and 11 above.

[J] Page 77, TABLE 3.2-7
<u>INSTRUMENTATION THAT INITIATES RECIRCULATION PUMP TRIP</u>

Trip Level Setting for Reactor Low-Low Water Level

1) Delete "> -38 in. indicated level"
2) Remove parentheses
3) Replace "the top of active fuel" with "TAF"

II. PURPOSE OF THE PROPOSED CHANGES

The proposed changes to the Technical Specifications fall into three categories:

A) Changes to reflect the installation of new instrumentation;
B) Changes to reflect the elimination of obsolete instrument setpoints and other miscellaneous items; and
C) One change to reflect a plant modification performed to meet the requirements of NUREG-0737 Item II.K.3.13.

<u>CATEGORY A</u>

In accordance with the requirements of Regulatory Guide 1.97 and Generic Letter 84-23, the reactor water level instrumentation system is being modified. New instrumentation is being installed and the ranges of several instruments are increased. Additionally, the reference legs for the wide range instruments are to be relocated outside of the containment. (This does not require any changes to the Technical Specifications.) The following changes fall into this category: G.4, G.11-13, and H.

CATEGORY B

The FitzPatrick Technical Specifications currently use two sets of reactor vessel instrumentation setpoints. The first set is the original setpoints. These setpoints are referenced to either the vessel bottom or to the bottom of the steam separator skirt. The second set, added in Reference 4, references all reactor water levels to the top of active fuel. The proposed change removes the original setpoints. The following changes fall into this category: A.2, C, D, E, F.1-9, F.11-16, G.1-4, G.8-10, and J.

Several miscellaneous changes are also made to the Technical Specifications. Changes A.1 and B.1 remove a label (LL1) that is not used at FitzPatrick. Change G.5 corrects an error contained in the Specifications. The 9-05 panel in the FitzPatrick Control Room contains three narrow narrow range reactor water level indicators. One of two of these signals can be selected to drive a pen on a chart recorder. Since there are only three sensors which drive these instruments, the number of instrument channels provided by design is three. This configuration is described in existing Notes 3 and 4 to the table. The error was introduced into the Technical Specifications in an application for amendment to operating license (Reference 10) and issued by the NRC in Amendment No. 48 (Reference 11).

The purpose of these changes is to remove the possibility of operator error due to the dual reference system or reliance on incorrect information. The proposed change improves the clarity and consistency of the Technical Specifications.

CATEGORY C

This change (F.10) reflects a change in the RCIC logic design. Upon receipt of a reactor high water level signal, the turbine steam supply isolation valve 13-MOV-131 will auto-close. Previously, this signal tripped the turbine by closing the hydraulic trip valve. Resetting this trip valve required local manual action, effectively making RCIC unavailable for the remainder of the transient.

The purpose of the change is to allow the RCIC system to auto-restart upon receipt of a subsequent reactor low water level signal. The intent of the existing specification is to protect the RCIC turbine from water admission. This can be accomplished by closure of any of the steam line valves. Since MOV-131 will reopen upon a RCIC initiation signal, it was selected to also close on high water level to provide the turbine protection function.

This modification was installed in 1981 to meet the requirements of NUREG-0737 Item II.K.3.13 (Reference 7). The Authority provided a detailed description of the modification to the NRC in Reference 8. The NRC reviewed the modification and found it to be acceptable (Reference 9).

III. IMPACT OF THE PROPOSED CHANGES

CATEGORY A

The reactor vessel water level instrumentation system is being modified to comply with NRC Generic Letter 84-23 and Regulatory Guide 1.97 Revision 2. No changes are made to the actual reactor water levels at which safety actuations occur. A detailed description of the modification is contained in Reference 5. The modification includes the following:

1) Replacing the existing wide-range level instrument's temperature compensated reference leg system with a cold leg system located outside the containment drywell. This will reduce level indication and ECCS initiation errors caused by high drywell temperatures during certain postulated accident conditions. High drywell temperature can be caused by the loss of drywell coolers, or by high energy line breaks (including loss of coolant accidents).

   When the reactor is depressurized to the saturation pressure of the water in the sensing lines, or the drywell heats up to the saturation temperature, flashing of water in the lines will occur and some of the water in the reference legs inside the drywell will boil off. Loss of water from the reference legs results in an indicated water level that is higher than actual.

2) One of the wide-range level indicators in the control room will be replaced with a level indicator-recorder. This provides a permanent record of the reactor water level as sensed by the wide-range instruments.

3) Two of the wide-range level instrument loops will be upgraded to conform to redundant Class 1E requirements. This increases the availabilty of control room indication under certain loss of electrical bus conditions.

4) The fuel zone instruments will be recalibrated to extend their range to the bottom of active fuel (BAF). Technical Specifications are also to be applied to these instruments. This assures the ability to monitor and record the reactor water level under postulated accident conditions when the water level is significantly below TAF. Technical Specifications will assure the operability and availability of these instruments.

CATEGORY B

NUREG-0737 Item II.K.3.27 (Reference 3) required all boiling water reactors to change the reactor vessel water level instrumentation reference system. Amendment No. 67 (Reference 4) added a common reference point (top of active fuel) to each reactor level instrument setpoint in the Technical Specifications to fulfill this NUREG-0737 requirement.

Plant procedures, training programs, control room and local instrumentation have been or will be changed to reflect the new instrument reference point. The old water level references have been rendered obsolete since the issuance of Amendment No. 67. Removing them from the Technical Specifications improves consistency and reduces the probability of misinterpretation.

No hardware or procedural changes (except for changes in nomenclature) are required to implement the proposed changes. Nor are any changes made to the actual reactor water levels at which safety actuations occur.

CATEGORY C

NUREG-0737 Item II.K.3.13 (Reference 7) required all boiling water reactors to modify the RCIC system such that the system will restart on subsequent low water level after it has been terminated by a high water level signal. The FitzPatrick RCIC system was modified in 1981 to meet this requirement. The modification is described in Reference 8 and approved by the NRC in Reference 9.

The proposed change to the Technical Specifications reflects this modification to the RCIC logic and trip valve design. Previously, a high reactor water level signal tripped the RCIC turbine by closing the hydraulic trip valve. Resetting this trip valve required local manual action, effectively making RCIC unavailable for the remainder of the transient. The purpose of the change is to allow RCIC to automatically reinitiate on low reactor water level following a high water level trip. This change contributes to improved system reliability during transients or postulated accident conditions.

The intent of the high water level trip is to isolate the RCIC steam supply line to prevent water from being introduced into the turbine. This turbine protection function can be performed by closing any valve in the steam line. Therefore, the proposed change does not change the intent of the specification.

If water was to enter the steam supply line prior to the reinitiation of RCIC, the steam trap located just ahead of the isolation valve should drain the line. RCIC was designed to withstand introduction of water into the turbine. If the line was not completely drained, no damage should result to the RCIC system.

No credit is taken for RCIC operation in the transient and accident analyses contained in the FitzPatrick FSAR. Therefore, modifications to the RCIC logic cannot impact any margin of safety or analysis as contained in the FSAR.

IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Operation of the FitzPatrick Plant in accordance with the proposed Amendment would not involve a significant hazards consideration as stated in 10 CFR 50.92 since it would not:

1. involve a significant increase in the probability or consequences of an accident previously evaluated. The Category A changes improve the reliability and availabilty of reactor water level signals which are used to initiate ECCS system and provide control room indication. The modification is not an accident initiator. The Category B change is purely administrative in nature and does not involve a physical change to the facility, and therefore, cannot affect any accident as analyzed in the FSAR. The Category C change improves the reliability and availability of a system which can be used under accident conditions. No credit has been taken for this system in the FSAR accident analyses. However, it improves the reliability of a system which could be used to mitigate the probability or consequences of accidents.

2. create the possibility of a new or different kind of accident from any accident previously evaluated. As stated above, the proposed changes increase the reliability of systems or functions which mitigate accident conditions (Category A and C) or are purely administrative in nature (Category B). No new or different types of accidents can occur as a result of improving the availability and reliability of the reactor water level instrumentation system, eliminating obsolete instrumentation set point references, or improving the availability of the RCIC system.

3. involve a significant reduction in a margin of safety. The proposed changes improve the performance of instrumentation and systems which mitigate transients and accidents. Elimination of obsolete reactor water level instrument zeros achieves consistency in the reactor vessel instrumentation setpoints. This reduces the probability of a misinterpretation of the specifications. No reduction of any margin of safety is caused by the proposed changes.

V. IMPLEMENTATION OF THE PROPOSED CHANGE

Implementation of the proposed changes will not impact the ALARA or Fire Protection Programs at FitzPatrick, nor will the changes impact the environment.

VI. CONCLUSION

The change, as proposed, does not constitute an unreviewed safety question as defined in 10 CFR 50.59. That is, it:

a. will not change the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report;

b. will not increase the possibility of an accident or malfunction of a different type from any previously evaluated in the Safety Analysis Report;

c. will not reduce the margin of safety as defined in the basis for any technical specification;

d. does not constitute an unreviewed safety question; and

e. involves no significant hazards consideration, as defined in 10 CFR 50.92.

VII. REFERENCES

1. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report, Table 7.3-3.

2. James A. FitzPatrick Nuclear Power Plant Safety Evaluation Report (SER).

3. NRC NUREG-0737 Post TMI Requirements, Action Item II.K.3.27 "Provide Common Reference Level for Vessel Level Instrumentation."

4. Letter, P.J. Polk (NRC) to L.W. Sinclair (NYPA), dated February 26, 1982, issuing Amendment No. 67 to the FitzPatrick Technical Specifications.

5. Letter, J.C. Brons (NYPA) to NRC, JPN-87-033, dated June 9, 1987, concerning implementation of NRC Generic Letter 84-23.

6. Regulatory Guide 1.97, Revision 2.

7. NRC NUREG-0737 Post TMI Requirements .n II.K.3.13 "HPCI/RCIC Initiation Level."

8. Letter, J.P. Bayne (PASNY) to D.B. Vassallo (NRC), JPN-83-036, dated April 28, 1983, concerning NUREG-0737 Item II.K.3.13 - RCIC Automatic Restart.

9. Letter, D.B. Vassallo (NRC) to J.P. Bayne (PASNY), dated June 17, 1983, concerning TMI Action Plan Item II.K.3.13, HPCI/RCIC Initiation Level.

10. Letter, P.J. Early (PASNY) to T.A. Ippolito (NRC), JPN-79-058, dated September 13, 1979, concerning Propsed Technical Specifications Changes Related to Instrumentation.

11. Letter, T.A. Ippolito (NRC) to G.T. Berry (PASNY), dated January 23, 1980, issuing Amendment No. 48 to the FitzPatrick Technical Specifications.